



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

US/09/903,068 B

Source:

FFW18

Date Processed by STIC:

4/12/89

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORRED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

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Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03



IFW16

**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/903,068B

DATE: 04/12/2004

TIME: 12:58:00

Input Set : A:\pto.ln.txt

Output Set: N:\CRF4\04122004\I903068B.raw

**SEQUENCE LISTING**

## 3 (1) GENERAL INFORMATION:

4 (i) APPLICANT: MIYAZONO, Kohei  
 5 TEN DIJKE, Peter  
 6 FRANZEN, Petra  
 7 YAMASHITA, Hidetoshi  
 8 HELDIN, Carl-Henrik

10 (ii) TITLE OF INVENTION: ACTIVIN RECEPTOR LIKE KINASES, PROTEINS  
 11 HAVING SERINE THREONINE KINASE DOMAINS,  
 12 AND THEIR USE

14 (iii) NUMBER OF SEQUENCES: 48

16 (iv) CORRESPONDENCE ADDRESS:

17 (A) ADDRESSEE: Fulbright & Jaworski L.L.P.  
 18 (B) STREET: 666 Fifth Avenue  
 19 (C) CITY: New York City  
 20 (D) STATE: New York  
 21 (E) COUNTRY: USA  
 22 (F) ZIP: 10103

24 (v) COMPUTER READABLE FORM:

25 (A) MEDIUM TYPE: Diskette, 3.25 inch, 1.44mb  
 26 (B) COMPUTER: IBM PS/2  
 27 (C) OPERATING SYSTEM: PC-DOS  
 28 (D) SOFTWARE: Wordperfect

30 (vi) CURRENT APPLICATION DATA:

C--&gt; 35 (A) APPLICATION NUMBER: US/09/903,068B

C--&gt; 36 (B) FILING DATE: 11-Jul-2001

66 (vii) PRIOR APPLICATION DATA:

39 (A) APPLICATION NUMBER: PCT/GB93/02367  
 40 (B) FILING DATE: November 17, 1993  
 43 (A) APPLICATION NUMBER: GB 9224057.1  
 44 (B) FILING DATE: November 17, 1992  
 47 (A) APPLICATION NUMBER: GB 9304677.9  
 48 (B) FILING DATE: March 8, 1993  
 51 (A) APPLICATION NUMBER: GB 9304680.3  
 52 (B) FILING DATE: March 8, 1993  
 55 (A) APPLICATION NUMBER: 9311047.6  
 56 (B) FILING DATE: May 28, 1993  
 59 (A) APPLICATION NUMBER: 9313763.6  
 60 (B) FILING DATE: July 2, 1993  
 63 (A) APPLICATION NUMBER: 9316099.2  
 64 (B) FILING DATE: August 3, 1993  
 67 (A) APPLICATION NUMBER: 321344.5  
 68 (B) FILING DATE: October 15, 1993

Does Not Comply  
 Corrected Diskette Needed

(pg. 2-3)

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/903,068B

DATE: 04/12/2004

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Input Set : A:\pto.ln.txt

Output Set: N:\CRF4\04122004\I903068B.raw

70 (viii) ATTORNEY/AGENT INFORMATION:  
 71 (A) NAME: Norman D. Hanson  
 72 (B) REGISTRATION NUMBER: 30,946  
 73 (C) REFERENCE/DOCKET NUMBER: LUD 5298.4 DIV (10105901)  
 75 (ix) TELECOMMUNICATION INFORMATION:  
 76 (A) TELEPHONE: (212) 318-3000  
 77 (B) TELEFAX: (212) 318-3400

## ERRORED SEQUENCES

2295 (2) INFORMATION FOR SEQ ID NO: 34:  
 2296 (i) SEQUENCE CHARACTERISTICS:  
 2297 (A) LENGTH: 178 amino acids  
 2298 (B) TYPE: 130 amino acid  
 2299 (D) TOPOLOGY: linear  
 2300 (ii) MOLECULE TYPE: peptide  
 2301 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34  
 2302 Thr Arg Leu His Leu Cys His Cys Ser Arg Glu Val Gly Cys Asn Ala  
 2303 5 10 15  
 2304 Arg Thr Thr Gly Trp Val Pro Gly Ile Glu Phe Leu Asn Glu Thr Asp  
 2305 20 25 30  
 2306 Arg Ser Phe Tyr Glu Asn Thr Cys Tyr Thr Asp Gly Ser Cys Tyr Gln  
 2307 35 40 45  
 2308 Ser Ala Arg Pro Ser Pro Glu Ile Ser His Phe Gly Cys Met Asp Glu  
 2309 50 55 60  
 2310 Lys Ser Val Thr Asp Glu Thr Glu Phe His Asp Thr Ala Ala Lys Val  
 2311 65 70 75 80  
 2312 Cys Thr Asn Asn Thr Lys Asp Pro His Ala Thr Val Trp Ile Cys Cys  
 2313 85 90 95  
 2314 Asp Lys Gly Asn Phe Cys Ala Asn Glu Thr Ile Ile His Leu Ala Pro  
 2315 100 105 110  
 2316 Gly Pro Gln Gln Ser Ser Thr Trp Leu Ile Leu Thr Ile Leu Ala Leu  
 2317 115 120 125  
 2318 Leu Thr

E--&gt; 2319

130

2466 (2) INFORMATION FOR SEQ ID NO: 47:  
 2467 (i) SEQUENCE CHARACTERISTICS:  
 2468 (A) LENGTH: 6 amino acids  
 2469 (B) TYPE: amino acid  
 2470 (D) TOPOLOGY: linear  
 2471 (ii) MOLECULE TYPE: peptide  
 2472 (v) FRAGMENT TYPE: internal  
 2473 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

E--&gt; 2474 Xaa Pro Val Art Trp Thr

2475

Invalid(?)  
 Amino Acid

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/903,068B

DATE: 04/12/2004

TIME: 12:58:03

Input Set : A:\pto.ln.txt

Output Set: N:\CRF4\04122004\I903068B.raw

L:31 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:32 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:35 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:35 M:238 W: Alpha Fields not Ordered, Reordered [(A) APPLICATION NUMBER:] of (1)(vi)  
L:36 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:88 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:284 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:493 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:712 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:912 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1112 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1306 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1511 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1709 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1903 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1916 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1929 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1942 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1955 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1968 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1981 M:220 C: Keyword misspelled or invalid format, [(iv) ANTI-SENSE:]  
L:1994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0  
L:2319 M:203 E: No. of Seq. differs, LENGTH:Input:178 Found:130 SEQ:34  
L:2354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0  
L:2366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0  
L:2378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0  
L:2390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0  
L:2402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
L:2414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0  
L:2426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0  
L:2438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0  
L:2450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0  
L:2462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0  
L:2474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0  
L:2474 M:330 E: (2) Invalid Amino Acid Designator, 1  
L:2486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0

